WHAT IS CLAIMED IS

1. An apparatus for coding a binary image representing an object shape, comprising:

an inferior symbol detecting unit which decides which one of binary zero and binary one is an inferior symbol that is of smaller occurrence within a given area of the binary image;

a divided portion generating unit which divides a rectangular block of the given area into divided portions;

a map information generating unit which generates map information for each one of the divided portions, the map information indicating whether a corresponding one of the divided portions has the inferior symbol included therein; and

a coding unit which encodes only the divided portions that have the inferior symbol included therein, wherein an identification of the inferior symbol, the map information, and the encoded divided portions are output from said apparatus.

2. The apparatus as claimed in claim 1, wherein the binary zero and the binary one represent an interior of the object shape and an exterior of the object shape.

3. The apparatus as claimed in claim 1, wherein said dividing portion generating unit is a pixel-line generating unit that divides the rectangular block into the divided portions that are pixel lines.

4. The apparatus as claimed in claim 3, further comprising:

a block generating unit which divides the given area into rectangular blocks, wherein the given area is one of macro blocks into which the binary image is divided; and

a block map information generating unit which generates block map information indicative of whether a corresponding one of the rectangular blocks has the inferior pixel included therein, wherein each of the rectangular blocks is divided into the divided portions by the divided portion generating unit only if there is the inferior pixel included therein.

5. The apparatus as claimed in claim 3, further comprising:

another inferior symbol detecting unit which detects another inferior symbol within one of macro blocks into which the binary image is divided;

a block generating unit which divides the

one of the macro blocks into rectangular blocks including said rectangular block; and

a block map information generating unit which generates block map information indicative of whether a corresponding one of the rectangular blocks has said another inferior pixel included therein, wherein each of the rectangular blocks is divided into the divided portions by the divided portion generating unit only if there is said another inferior pixel included therein.

6. The apparatus as claimed in claim 5, wherein said given area coincides with said rectangular block.

7. The apparatus as claimed in claim 3, further comprising a pixel rearranging unit which rearranges pixels within the pixel lines before said coding unit encodes the divided portions, wherein information about rearrangement of the pixels is output from said apparatus.

8. The apparatus as claimed in claim 1, wherein said coding unit encodes the map information

before the map information is output from said apparatus.

9. An apparatus for coding a binary image representing an object shape, comprising:

an inferior symbol detecting unit which decides which one of binary zero and binary one is an inferior symbol that is of smaller occurrence;

a divided portion generating unit which divides a block of the binary image into divided portions; and

a coding unit which encodes only the divided portions that have the inferior symbol included therein.

10. A method of coding a binary image representing an object shape, comprising the steps of:

deciding which one of binary zero and binary one is an inferior symbol that is of smaller occurrence within a given area of the binary image;

dividing a rectangular block of the given area into divided portions; and

encoding only the divided portions that have the inferior symbol included therein.

11. The method as claimed in claim 10, further comprising the steps of:

generating map information for each one of the divided portions, the map information indicating whether a corresponding one of the divided portions has the inferior symbol included therein; and

transmitting to a decoding side an identification of the inferior symbol, the map information, and the encoded divided portions.

12. The method as claimed in claim 10, further comprising the step of:

dividing the given area into rectangular blocks; and

subjecting any given one of the rectangular blocks to said step of dividing only if said any given one of the rectangular blocks has the inferior symbol included therein.